

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of )  
Jack Zeyu SONG et al. ) Group Art Unit: Unassigned  
Application No.: Unassigned ) Examiner: Unassigned  
Filed: March 15, 2001 )  
For: LING AGGREGATION )

**PRELIMINARY AMENDMENT**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

Prior to examination, please amend the above-identified application as follows:

**IN THE CLAIMS:**

Please replace claims 1-7 as follows.

1. (Amended) Method to optimise route selection in a communication system comprising branch points (A-F) of transmission links (L1-L9), the quality of each link being represented by topology parameters (TM, TA) divided into categories, whereby two of the branch points (B, E) have a set of multiple parallel links (L1, L2, L3) in-between, said method comprising the following steps:

- selecting among the set of parallel links (L1, L2, L3), the links having the most favourable topology parameter (TM, TA), each category;
- aggregating the set of parallel links into an abstract link (SUPER) between the two branch points (B, E) , the abstract link (SUPER) being represented by each categories most favourable topology parameter (TM, TA).

2. (Amended) Method according to claim 1, the selection of the links having the best topology parameters comprising the following further steps:

comparing all topology parameters for each category belonging to the set of parallel links;

and

storing of the best topology parameter value, each category.

3. (Amended) Method to optimise route selection in a communication system having branch points (A-F) of transmission links (L1-L9), the quality of each link being represented by a topology metric value (TM) and a topology attribute value (TA), said method [being comprising the following steps:

selecting among a set of parallel links (L1, L2, L3) between two of the branch points (B, E), a link (L1) having the best topology metric value (TM);

selecting among the set of parallel links (L1, L2, L3) between the two branch points (B, E), a link (L3) having the best topology attribute value (TA); and

aggregating the set of multiple links into an abstract link (SUPER) between the two branch points (B, E) , the abstract link being represented by the best topology metric value (TM) and by the best topology attribute value (TA).

4. (Amended) Method according to claim 1, the selection of the link having the best topology metric value comprising the following further steps:

comparing all topology metric values belonging to the set of parallel links; and

storing of the best topology metric value (TM) among the values belonging to the set of parallel links.

5. (Amended) Method according to claim, the selection of the link having the best topology attribute value (TA) comprising the following further steps:

- comparing all topology attribute values belonging to the set of parallel links;
- storing of the best topology attribute value among the values belonging to the set of parallel links.

6. (Amended) Arrangement to optimise route selection in a communication system having branch points (A-F) of transmission links (L1-L9), the quality of each link being represented by topology parameters (TM, TA) within different categories, whereby two of the branch points (B, E) have a set of multiple parallel links (L1, L2, L3) in-between, said arrangement comprising:

- means for selecting among the set of parallel links (L1, L2, L3), the links having the most favourable topology parameter (TM, TA), each category;
- means for aggregating the set of parallel links into an abstract link (SUPER) between the two branch points (B, E), the abstract link (SUPER) being represented by the most favourable topology parameter (TM, TA), each category.

7. (Amended) Arrangement according to claim 6, furthermore comprising:

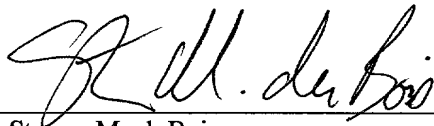
- means for comparing all topology parameters for each category belonging to the set of parallel links; and
- means for storing of the best topology parameter value, each category.

**REMARKS**

The above changes to the claims have been made to delete multiple dependency of the claims, to round out the scope of patent protection being sought, and generally to place the claims in better condition for examination on the merits. These changes have been made in accordance with 37 C.F.R. § 1.121 as amended on November 7, 2000.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

By:   
Steven M. duBois  
Registration No. 35,023

P.O. Box 1404  
Alexandria, Virginia 22313-1404  
(703) 836-6620

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**Attachment to Amendment dated March 15, 2001**

**Marked-up Claims 1-7**

1. (Amended) Method to optimise route selection in a communication system comprising branch points (A-F) of transmission links (L1-L9), the quality of each link being represented by topology parameters (TM, TA) divided into categories, whereby two of the branch points (B, E) have a set of multiple parallel links (L1, L2, L3) in-between, said method [being characterized by] comprising the following steps:

- selecting among the set of parallel links (L1, L2, L3), the links having the most favourable topology parameter (TM, TA), each category;

- aggregating the set of parallel links into an abstract link (SUPER) between the two branch points (B, E), the abstract link (SUPER) being represented by each categories most favourable topology parameter (TM, TA).

2. (Amended) Method according to claim 1, the selection of the links having the best topology parameters comprising the following further steps:

comparing all topology parameters for each category belonging to the set of parallel links;  
and

storing of the best topology parameter value, each category.

3. (Amended) Method to optimise route selection in a communication system having branch points (A-F) of transmission links (L1-L9), the quality of each link being represented by a topology metric value (TM) and a topology attribute value (TA), said method [being characterized by] comprising the following steps:

selecting among a set of parallel links (L1, L2, L3) between two of the branch points (B, E), a link (L1) having the best topology metric value (TM);

selecting among the set of parallel links (L1, L2, L3) between the two branch points (B, E), a link (L3) having the best topology attribute value (TA); and

aggregating the set of multiple links into an abstract link (SUPER) between the two branch points (B, E), the abstract link being represented by the best topology metric value (TM) and by the best topology attribute value (TA).

4. (Amended) Method according to claim 1, the selection of the link having the best topology metric value comprising the following further steps:

comparing all topology metric values belonging to the set of parallel links; and  
storing of the best topology metric value (TM) among the values belonging to the set of parallel links.

5. (Amended) Method according to claim 1 [or 2], the selection of the link having the best topology attribute value (TA) comprising the following further steps:

- comparing all topology attribute values belonging to the set of parallel links;  
- storing of the best topology attribute value among the values belonging to the set of parallel links.

6. (Amended) Arrangement to optimise route selection in a communication system having branch points (A-F) of transmission links (L1-L9), the quality of each link being represented by topology parameters (TM, TA) within different categories, whereby two of the branch points (B, E) have a set of multiple parallel links (L1, L2, L3) in-between, said arrangement [being characterized by] comprising:

- means for selecting among the set of parallel links (L1, L2, L3), the links having the most favourable topology parameter (TM, TA), each category;  
- means for aggregating the set of parallel links into an abstract link (SUPER) between the two branch points (B, E), the abstract link (SUPER) being represented by the most favourable topology parameter (TM, TA), each category.

7. (Amended) Arrangement according to claim 6, furthermore comprising:

- means for comparing all topology parameters for each category belonging to the set of parallel links; and  
- means for storing of the best topology parameter value, each category.